

REMARKS/ARGUMENTS

Favorable reconsideration of this application is respectfully requested.

Claims 1-4, 6, 8-11, 13-22, 24, and 25 are presented for examination. Claim 5, 7, 12, and 23 were previously canceled without prejudice or disclaimer. Claims 1 and 11 have been amended to adopt examiner suggestions in the outstanding Action to overcome various objections and rejections and Claims 4, 21, and 22 have been amended to be consistent with the amendments made to parent Claim 1, all without the introduction of any new matter.

The outstanding Office Action includes an objection to the drawings, specification and pending claims, a rejection of Claims 1-4, 6, 8-11, 13-22, 24, and 25 under the written description requirement of the first paragraph of 35 U.S.C. §112, two rejections of Claims 1-4, 6, 8-11, 13-22, 24, and 25 under the second paragraph of 35 U.S.C. §112, a rejection of Claims 1-4, 6, 8-11, 13-22, 24, and 25 under the 35 U.S.C. §101 as being directed to non-statutory subject matter, a rejection of Claims 1-4, 6-14, 16, and 18-23 under 35 U.S.C. §103(a) as being unpatentable over Hladik et al. (U.S. Patent No. 5,734,962, Hladik) in view of Wicker (Error Control Systems for Digital Communication and Storage, Wicker text).

Initially, Applicants thank the Examiner for the courtesy of the telephone discussion held on May 24, 2005, with Applicants' representative. The examiner is further thanked for confirming Applicants' understanding that the objection to "error-corrected" of paragraph 3 of the outstanding Action, the rejection of Claims 1-4, 6, 8-11, 13-22, 24, and 25 under the first paragraph of 35 U.S.C. §112 of paragraph 5 of the outstanding Action, and the rejection of Claims 1-4, 6, 8-11, 13-22, 24, and 25 under the second paragraph of 35 U.S.C. §112 of paragraph 6 of the outstanding Action were all based on the Claim 1 recital of "error-

corrected" and could be overcome by amending Claim 1 to change the recited step of "performing error-correcting coding of digital data to produce error-corrected digital data with error-correcting coding" to --performing error-correction encoding of digital data to produce error-correction encoded digital data--.

Applicants' representative further acknowledges with gratitude the discussion of the rejection of Claims 1-4, 6, 8-11, 13-22, 24, and 25 under the 35 U.S.C. §101 as being directed to non-statutory subject matter as noted in paragraph 8 of the outstanding Action. In this regard, the Examiner emphasized the need for at least one step that could not be carried out by hand and that the suggested amendment requiring the claimed step of transmitting to be over a communication channel was needed to overcome this rejection. This suggestion has been adopted as noted below.

The Examiner is further thanked for indicating that he would call Applicants' representative at the below indicated telephone number if any further formal matters were deemed to be outstanding so that corrective language agreeable to the Examiner and to Applicants could be determined.

Turning to the objection to the drawings of paragraph 2 of the outstanding Action, this objection is believed to be overcome by the presentation herewith of a replacement drawing sheet containing corrected versions of Figures 5 and 6 that properly label element 85 of Figure 5 as to determining "QUALITY," not "QUANTITY," and element 60 of Figure 6 as being for "CODING," instead of "DECODING." Accordingly, it is believed that this objection to the drawings should be withdrawn.

The objection to the specification of paragraph 3 (on page 3), the rejection of Claims

1-4, 6, 8-11, 13-22, 24, and 25 under the written description requirement of the first paragraph of 35 U.S.C. §112 of paragraph 5 (on page 4) of the outstanding Action, and the rejection of Claims 1-4, 6, 8-11, 13-22, 24, and 25 under the second paragraph of 35 U.S.C. §112 of paragraph 6 of the outstanding Action are also believed to be have been overcome by the present Amendment. In this regard, the present Amendment changes the criticized Claim 1 recited step of “performing error-correcting coding of digital data to produce error-corrected digital data with error-correcting coding” to --performing error-correction encoding of digital data to produce error-correction encoded digital data--. This new language is consistent with the suggested language of paragraph 8 of the outstanding Action and the above-noted telephone discussion with the Examiner. Accordingly, it is believed that this objection and these rejections of paragraphs 3, 5, and 6 of the outstanding Action should also be withdrawn.

Turning to the objection in paragraph 4 of the outstanding Action (as to the preamble of base Claim1) and the rejection of Claims 1-4, 6, 8-11, 13-22, 24, and 25 under the second paragraph of 35 U.S.C. §112 (because of the missing word “from”), it is believed that the present amendment that adopts the corrective preamble language suggested in paragraph 4 of the outstanding Action and the addition of “from” as suggested in paragraph 7 of the outstanding Action should be considered to overcome this paragraph 4 objection and paragraph 7 rejection. Accordingly, it is believed that this paragraph 4 objection and paragraph 7 rejection should further be withdrawn.

As noted above, the rejection of Claims 1-4, 6, 8-11, 13-22, 24, and 25 under the 35 U.S.C. §101 as being directed to non-statutory subject matter as noted in paragraph 8 of the outstanding Action, is further believed to be overcome by the adoption of the suggestion that

transmitting occurs over a “communication channel.”

With regard to the rejection of Claims 1-4, 6, 8-11, 13-22, 24, and 25 under 35 U.S.C. §103(a) as being unpatentable over Hladik in view of the Wicker text, it is noted that these rejected claims all clearly require the base independent Claim 1 “determined decoded information quality parameter” to be determined “from the determined decoded characteristic statistical quantity and from at least one configuration parameter” (emphasis added). The outstanding Action appears to attempt to read this limitation requiring the use of “at least one configuration parameter” (emphasis added) to help determine the “determined decoded information quality parameter” on an output provided by the “Threshold Decision Device 112.” However, “Threshold Decision Device 112” simply determines whether an output decoded value is greater than $\frac{1}{2}$, less than $\frac{1}{2}$ or equal to $\frac{1}{2}$, to unambiguously indicate a decoded value of zero or one (as described at col. 5, lines 20-25).

In order to emphasize that the output provided by the “Threshold Decision Device 112” of Hladik (that simply determines whether an output decoded value is to be interpreted to be a “zero” or a “one”) cannot be reasonably read on providing the Claim 1 required “at least one configuration parameter” (emphasis added) Claim 1 has been amended to note that such a “configuration parameter” must be “a system parameter indicating at least one of coding conditions, communication channel transmission conditions, and decoding conditions.”

The teachings of the Wicker text do not cure the noted deficiencies of Hladik and the rejection of Claim 1 is traversed as the combined teachings of the relied upon references are not sufficient to meet all limitations of Claim 1 even if combined.

Although the above comments traversing the 35 U.S.C. §103 rejection are primarily

directed to Claim 1, they are equally applicable to Claims 2-4, 6, 8-11, 13-22, 24, and 25 because each of these claims all ultimately depends from Claim 1 and, thus, includes all the subject matter of this base independent claim. In addition, each of these dependent Claims 2-4, 6, 8-11, 13-22, 24, and 25 add further features to the subject matter of independent base Claim 1, which further features are also not reasonably taught or suggested by Hladik and/or the Wicker text considered alone or together in any proper combination. Note, for example the requirements of Claims 6 for “the determined decoded characteristic statistical quantity” to be “a mean of an absolute value of extrinsic information determined from the set of extrinsic information items,” not the “probability” argued at the bottom of page 11 as being the outcome of “a discrete probabilistic system with exactly one outcome” that is not the subject matter claimed. The attempt to change the reading of what is being read as the configuration parameter from the output of 112 to general “error correction information” as to Claims 13-16 is further noted to be a completely unreasonable approach.

Accordingly the rejection of Claims 1-4, 6-14, 16, and 18-23 under 35 U.S.C. §103(a) as being unpatentable over Hladik and the Wicker text is traversed for all the above-noted reasons.

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Reply to Office Action of 04/26/2005

As no other issues are believed to remain outstanding relative to this application, it is believed to be clear that this application is in condition for formal allowance and an early and favorable action to this effect is, therefore, respectfully requested.

Respectfully submitted,

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IN THE DRAWINGS

The attached sheet of drawings includes changes to Figs. 5 and 6. This sheet, which includes Figs. 5 and 6, replaces the original sheet including Figs. 5 and 6.

Attachment: Replacement Sheet